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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,177	11/20/2003	David Miller	019930-002840US	3225

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EXAMINER

DOUGHERTY, THOMAS M

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/719,177

Applicant(s)

MILLER ET AL.

Examiner

Thomas M. Dougherty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-91 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

- I. Claims 1-2, drawn to a method for overcoming stiction, classified in class 310, subclass 309 or 311.
- II. Claims 3-10, drawn to an electromechanical device with a means to overcome stiction, classified in class 310, subclass 309, 311 or 328.
- III. Claims 11-17, drawn to a method of overcoming stiction in a micromirror device, classified in class 310, subclass 308, 311 or 328.
- IV. Claims 18-24, drawn to a method of overcoming stiction in a device comprising a plurality of micromirrors, classified in class 310, subclass 309, 311 or 328.
- V. Claims 25-31, drawn to an electromechanical device with a structure that allows overcoming stiction, classified in class 310, subclass 309, 311 or 328.
- VI. Claims 32-40, drawn to a method of providing localized vibration to a stop or structural plate, classified in class 310, subclass 309, 311 or 328.
- VII. Claims 41-45, drawn to an electromechanical structure with a pivot, mechanical stop and actuator, classified in class 310, subclass 309, 311 or 328.
- VIII. Claims 46-49, drawn to an optical routing apparatus, classified in class 310, subclass 309, 311 or 328.

- IX. Claims 50-56, drawn to an electromechanical structure with a stop and actuator and structural plate, classified in class 310, subclass 309, 311 or 328.
- X. Claims 57-62, drawn to a method for providing a localized vibration to a stop, classified in class 310, subclass 309, 311 or 328.
- XI. Claims 63 and 64, drawn to an electromechanical structure, classified in class 310, subclass 309 or 311.
- XII. Claims 66 and 67, drawn to an optical routing apparatus, classified in class 310, subclass 309, 311 or 328.
- XIII. Claims 68-80, drawn to an electromechanical apparatus, classified in class 310, subclass 309, 311 or 328.
- XIV. Claims 83-89, drawn to a method of providing localized vibration to stop or structural plate, classified in class 310, subclass 309, 311 or 328.
- XV. Claims 90 and 91, drawn to an electromechanical structure including a stop, base layer pivot, driving force and a structural plate, classified in class 310, subclass 309, 311 or 328

This application contains claims directed to the following patentably distinct species of the claimed invention: the group I, III and IV inventions. Group I provides for overcoming stiction of a structural plate. Group III provides for overcoming stiction for a micromirror. Group IV provides for overcoming stiction for a plurality of micromirrors.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 and 2 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

This application contains claims directed to the following patentably distinct species of the claimed invention: the group II, V, VII, IX, XI, XIII and XV inventions. Group XI provides for an electromechanical structure including only a mechanical stop, actuator and structural plate. Groups II, V, VII, IX, XIII and XV cite the limitations of Group XI as well as additional limitations.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 63 and 64 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions of Groups VI, X and XIV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The Group VI invention applies static force and both actuators are deactivated at the same time. The Group X invention activates a first actuator while

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deactivating the second actuator at the same time. The Group XIV invention is for a micromirror while the other two groups comprise structural plates.

Inventions of Groups VIII and XII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The Group VIII invention employs a DC actuator, while the Group XII invention employs an AC actuator.

Inventions of Groups II, V, VII, IX, XI and XV and Groups I, III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product such as a relay.

Inventions of Groups VIII and XII and Groups I, III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product such as a relay.

Inventions of Groups I, III and IV and of Groups VI, X and XIV are unrelated.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, for example the second set of groups defines specific methods of operation in more detail than the first set of groups.

Inventions of Groups II, V, VII, IX, XI, XIII and XV and inventions of Groups VI, VIII, X, XII and XIV, are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product such as a relay.

Inventions of Groups VI, X, and XIV and inventions of Groups VIII and XII, are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product such as a relay.



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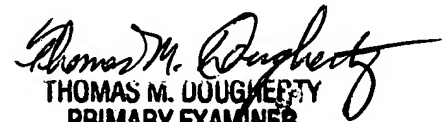
Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Direct inquiry concerning this action to Examiner Dougherty at (571) 272-2022.

  
tmd

April 6, 2004

  
THOMAS M. DOUGHERTY  
PRIMARY EXAMINER  
GROUP 2100